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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,941	03/23/2001	Stephen Christopher Kitson	30001065	6953

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06/02/2004

Paul D. Greeley
c/o Ohlandt, Greeley, Ruggiero & Perle
Suite 903
One Landmark Square
Stamford, CT 06901

EXAMINER

DUONG, THOI V

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding:

Office Action Summary

Application No.

09/816,941

Applicant(s)

KITSON ET AL.

Examiner

Thoi V Duong

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003 and 05 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-33 ~~is/are~~ pending in the application.
- 4a) Of the above claim(s) 15-20, 22, 23 and 30-33 ~~is/are~~ withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 24-29 ~~is/are~~ rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0304.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species I, claims 1-14 and 24-29, on March 05, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 1 was amended in this election and claim 21 was previously cancelled. Currently, claims 15-20, 22, 23 and 30-33 are withdrawn from consideration and claims 1-14 and 24-29 are considered in this office action.

It is noted that claims 1-14 were amended and claims 24-29 were added according to the Amendment filed October 14, 2003.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14 and 24-29 filed October 14, 2003 have been considered but are moot in view of the new ground(s) of rejection.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-14 and 24-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 6, 9, 11, 12, 13 and 25-27 of copending Application No. 09/816942 and claims 1, 10 and 12-15 of copending Application No. 09/815999. Although the conflicting claims are not identical, they are not patentably distinct from each other because the examined claims are either anticipated by or would have been obvious over the reference claims. The only difference is the arrangement of the posts in one of a random or pseudorandom array.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

5. Claim 10 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 8. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 8, 10-14 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bryan-Brown et al. (USPN 5,917,570).

Re claim 1, as shown in Figs. 1, 2, and 5, Bryan-Brown et al. discloses a liquid crystal device comprising a first cell wall 4 and a second cell wall 3 enclosing a layer 2 of liquid crystal material;

electrodes 6 and 7 for applying an electric field across at least some of the liquid crystal material; and

a surface alignment structure on the inner surface of at least the first cell wall providing a single desired alignment to the liquid crystal director (col. 3, lines 64-66),

wherein the said surface alignment structure comprises a two dimensional array of alignment posts (small pillars) which are at least one of shaped and orientated to produce the desired alignment (col. 2, lines 36-43);

wherein, *re claims 2 and 3*, said posts have a height in the range of about 1-3 micrometers (col. 3, lines 21-28);

wherein, *re claim 4*, at least part of a side wall of said posts is tilted with respect to the normal to the plane of the first cell wall (Fig. 7, section AA);

wherein, *re claims 5 and 6*, as shown in Fig. 6, each post has a width of 0.7 micrometer and spaced apart 0.5 micrometers from each other (col. 5, lines 30-34);

wherein, *re claim 7*, the liquid crystal material contains a surfactant (col. 6, lines 10-19)

wherein, *re claims 8 and 10*, said posts are formed from at least one of a photoresist or a plastics material (col. 2, lines 36-37);

wherein, *re claim 9*, said posts are of a different height (groove depth) (col. 2, lines 12-18); and

wherein, *re claim 11*, a cell wall for use in manufacturing a liquid crystal comprises a wall and said alignment structure on one surface thereof for providing a single desired alignment to said liquid crystal director (col. 2, lines 10-18).

Re claims 12-14, as to the product-by-process limitation recited in claims 12-14, it has been recognized that "Even through product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process". *In re Thorpe*, 227 USPQ 964,966 (Fed. Cir. 1985). See also MPEP 2113.

Re claims 25-27, Bryan-Brown et al. discloses that said alignment posts have a round cross section, or a triangular cross section or an oval cross section as shown in Figs. 3 and 7.

Re claim 28, Bryan-Brown et al. discloses that said liquid crystal material is a nematic liquid crystal (col. 3, lines 38-40).

Finally, *re claim 29*, the device of Bryan-Brown et al. further comprises one or more spacer posts, said one or more spacer posts spanning the entire cell (col. 2, lines 38-43).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,917,570 (US'570) of Bryan-Brown et al..**

Bryan-Brown et al. discloses a liquid crystal device that is basically the same as that recited in claim 24 except for alignment posts having a square cross section. However, it would have been obvious to have a square cross section for alignment posts, since such a modification would have involved a mere change in the shape of said alignment posts. Furthermore, a change in shape is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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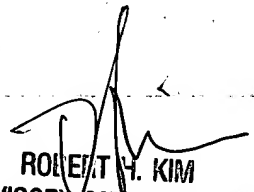
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong 

05/30/2004


ROBERT T. KIM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800